

Title (en)
RESIN GEAR

Title (de)
HARZZAHNRAD

Title (fr)
ENGRENAGE EN RÉSINE

Publication
EP 3812623 A4 20210609 (EN)

Application
EP 18923068 A 20180621

Priority
JP 2018023687 W 20180621

Abstract (en)
[origin: EP3812623A1] A resin gear 1 includes an annular metal bush 3 and an annular resin member 7 having a tooth profile 7a formed in an outer peripheral portion. The metal bush 3 and the resin member 7 are disposed so as to be relatively rotatable in a direction of rotation of the resin gear 1. A plurality of spaces K1 entering an outer peripheral surface 3o of the metal bush 3 and an inner peripheral surface 7i of the resin member 7 are formed, so as to be aligned along the direction of rotation, between the metal bush 3 and the resin member 7. An elastic member 5 is disposed in the space K1. The space K1 and the elastic member 5 have a first part where a distance between the outer peripheral surface 3o and the inner peripheral surface 7i is a first distance L1, a second part where the distance between the outer peripheral surface 3o and the inner peripheral surface 7i is a second distance L2 different from the first distance L1, and a third part where the distance between the outer peripheral surface 3o and the inner peripheral surface 7i is a third distance L3 different from the first distance L1 in a cross section along a radial direction of the resin gear 1. The first part is provided between the second part and the third part in an axial direction of the resin gear 1.

IPC 8 full level
F16H 55/14 (2006.01); **F16H 55/06** (2006.01); **F16H 55/12** (2006.01)

CPC (source: EP US)
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F16H 2055/065 (2013.01 - EP)

Citation (search report)

- [XY] WO 9418476 A1 19940818 - FENELON PAUL J [US]
- [XYI] JP 2017115969 A 20170629 - HITACHI CHEMICAL CO LTD
- [XYI] JP 2007056923 A 20070308 - SHIN KOBE ELECTRIC MACHINERY
- [XYI] CN 104500693 A 20150408 - UNIV CHONGQING
- See also references of WO 2019244309A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
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EP 3812623 A1 20210428; EP 3812623 A4 20210609; JP 7160096 B2 20221025; JP WO2019244309 A1 20210610; US 11549576 B2 20230110;
US 2021231206 A1 20210729; WO 2019244309 A1 20191226

DOCDB simple family (application)
EP 18923068 A 20180621; JP 2018023687 W 20180621; JP 2020525173 A 20180621; US 201816972617 A 20180621